## Textbook Alignment to the Utah Core – Pre-Algebra

This alignment has been completed using an "Independent Alignment Vendor" from the USOE approved list ( <u>www.schools.utah.gov/curr/imc/indvendor.html</u> .) Yes <u>X</u> No
Name of Company and Individual Conducting Alignment:  Carissa Bautista
A "Credential Sheet" has been completed on the above company/evaluator and is (Please check one of the following):
${f X}$ On record with the USOE.
☐ The "Credential Sheet" is attached to this alignment.
Instructional Materials Evaluation Criteria (name and grade of the core document used to align): Pre-Algebra Core Curriculum
Title: Math Connects: Concepts, Skills and Problems Solving, Course 3 © 2009 ISBN#: 0078740525 & 0078882931
Publisher: Glencoe/McGraw-Hill
Overall percentage of coverage in the Student Edition (SE) and Teacher Edition (TE) of the Utah State Core Curriculum:100%
Overall percentage of coverage in <i>ancillary materials</i> of the Utah Core Curriculum:%

STANDAR	D I: Students will expand number sense to understand	, perform operations, and solve problems with	n rational numbers.	
Percentage Standard I	e of coverage in the <i>student and teacher edition</i> for :100%	Percentage of coverage not in student or tean ancillary material for Standard I:	acher edition, but cove	ered in the
OB	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
Objective	1.1: Compute fluently with understanding and make	Student Edition:		
reasonable	e estimates with rational numbers.	25-26, 41-56, 65-73, 96-98, 102-112, 114-123		
		Algebra Lab 40		
		Teacher's Edition:		
		PA 32, 69, 116, 122		
a.	Compute fluently using all four operations with integers,	Student Edition:		
	and explain why the corresponding algorithms work.	31-34, 36-39, 41-45, 46-49, 51-56, 65-69, 70-73		
		Algebra Lab 40		
		Teacher's Edition:		
		AE 37, 42, 47, 52, 67, 71; PA 32, 69		
b.	b. Compute fluently using all four operations with rational	Student Edition:		
	numbers, including negative fractions and decimals, and	96-98, 102-107, 108-112, 114-118, 119-123		
	explain why the corresponding algorithms work.	Teacher's Edition:		
		AE 97, 98, 103, 104, 109, 115; PA 116		

ОВ	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
c.	Check the reasonableness of results using estimation.	Student Edition: 25-26, 104 Example 5, 115 Example 4, 226 Example 2, 280, 430 #22-#23 Study Tip 163, 265, 286, 381 Test-Taking Tip 115 Teacher's Edition: DI 62; I 26		
	1.2: Analyze relationships among rational numbers, negative rational numbers, and operations involving bers.	Student Edition: 31-33, 43, 91-95, 144-147 Get Ready 102, 108, 114, 119 Mini Lab 96 Teacher's Edition: DI 109		
a.	Order rational numbers in various forms, including scientific notation (positive and negative exponents), and lace numbers on a number line.	Student Edition: 91-95, 101 #50, #55-#57, 107 #55, 130-133 Study Guide and Review 34 2-2 Teacher's Edition: A 95; AE 92, 93; DI 93; T 91; TT 133		
b.	Predict the effect of operating with fractions, decimals, percents, and integers as an increase or a decrease of the original value.	Student Edition: 107 #46-#47, 117 #36, 129 #44  Get Ready 102, 108, 114  Mini Lab 96  Teacher's Edition: DI 109; SQ 96, 102, 108, 114; TT 98		

OE	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
C.	Recognize and use the identity properties of addition and multiplication, the multiplicative property of zero, the commutative and associative properties of addition and multiplication, and the distributive property of multiplication over addition.	Student Edition: 31, 32 #25-#32, 33 #35-#36, #44, 43, 53, 56 #63-#64, 65-66, 70-71, 73 #35, 102, 156 Get Ready 119 #2, #4 Teacher's Edition: A 69; AE 31, 103		
d.	Recognize and use the inverse operations of adding and subtracting a fixed number, multiplying and dividing by a fixed number, and computing squares of whole numbers and taking square roots of perfect squares.	Student Edition: 43, 144-147, 158 #2, #13 Geometry Lab 161 Teacher's Edition: 144a; AE 156, 145; TT147		
	1.3: Solve problems involving rational numbers using ubtraction, multiplication, and division.	Student Edition: 96-98, 102-107, 108-112, 114-118, 119-123 Teacher's Edition: AE 97, 98, 103, 104, 109, 115; PA 116		
a.	Recognize the absolute value of a rational number as its distance from zero.	Student Edition: 36-39, 45 #47-#48, 49 #52-#55 Study Guide and Review 76 1-3 Teacher's Edition: A 39; AE 36, 37; PA 39		

ОВ	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
b.	Simplify numerical expressions, including those with whole number exponents and absolute values, using the order of operations.	Student Edition: 30, 32 #1-#6, #11-#21, 33 #45-#47, 34 #48, 39 #51-#53, 42-44, 96-100, 102-107, 108-111  Algebra Lab 40  Teacher's Edition:		
		AE 30, 43, 97		
C.	Solve problems involving rational numbers, percents, and proportions.	Student Edition:  86 Example 3, 100 #48, 104 Example 5, 110 #27-#28, 112 #50, 117 #31, #37, 122 #38, 232-235, 236-241, 252-255, 256-261  Get Ready 119  Reading to Solve Problems 262  Teacher's Edition:		
		AE 115		

	e of coverage in the s <i>tudent and teacher edition</i> for I:100 %	Percentage of coverage not in student or teacher edition, but covered in the ancillary material for Standard II:%		red in the
OE	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
Objective 2.1: Model and illustrate meanings of ratios, percents, and decimals.		Student Edition: 190-193, 194-197, 198-203, 252-255, 263-267, 481-485 Teacher's Edition: A 191, 205, 255; DI 191		
a.	Compare ratios to determine if they are equivalent.	Student Edition: 190-193, 198-203, 256-259 Teacher's Edition: A 191, 193, 195; DI 191; T 190		
b.	Compare ratios using the unit rate.	Student Edition: 191 Example 4, 192 #5-#6, #18-#21, 193 #27, 198 Example 1 Teacher's Edition: DI 191		
c.	Represent percents as ratios based on 100 and decimals as ratios based on powers of ten.	Student Edition: 252-255, 263-267, 268, 271 #39-#42 Teacher's Edition: A 255, 264; AE 253; FM 253; T 252		

OB	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
d.	Graph proportional relationships and identify the unit rate as the slope of the related line.	Student Edition: 199-202, 204-208, 481-485 Teacher's Edition: AE 205, 206, 482; DI 483		
	2.2: Solve a wide variety of problems using ratios and al reasoning.	Student Edition: 210-214, 232-235, 236-241, 263-271, 275-283 Spreadsheet Lab 294 Teacher's Edition: AE 211, 212; PA 212		
a.	Set up and solve problems involving proportional reasoning using variables.	Student Edition: 210-214, 232-235, 236-241, 263-261 Teacher's Edition: AE 211, 212, 238; PA 212		
b.	Solve percent problems, including problems involving discounts, interest, taxes, tips, and percent increase or decrease.	Student Edition: 263-267, 268-271, 284-278, 279-283, 284-289, 290-293 Spreadsheet Lab 294 Teacher's Edition: A 293; AE 265, 285, 291; PA 287		
C.	Solve ratio and rate problems using informal methods.	Student Edition: 189-203, 232-235 Get Ready 190, 210 Teacher's Edition: AE 199; T 210; TT 192		

ОВ	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
	2.3: Recognize similar polygons and use properties	Student Edition:		
of similar triangles to solve problems and define the slope of a line.	218-223, 225-230, 232-235, 236-241, 481- 485			
		Geometry Lab 224, 493		
		Spreadsheet Lab 231		
		Teacher's Edition:		
		218a; A 223; AE 219, 220, 221, 227; PA 212; T 218		
a.	a. Define similar polygons as polygons with corresponding angles congruent and corresponding sides that are proportional.	Student Edition:		
		218-223, 225-230, 232-235, 236-241		
		Geometry Lab 224		
		Spreadsheet Lab 231		
		Teacher's Edition:		
		218a; A 223; AE 219, 220, 221, 227; PA 212; T 218		
b.	Identify pairs of similar triangles using two pairs of	Teacher's Edition:		
	congruent angles, or two pairs of proportional sides with congruent included angles.	PA 212		
C.	Find missing lengths of similar triangles, including	Student Edition:		
	inaccessible lengths, using proportions.	218-223, 232-235		
		Study Guide and Review 245 4-7, 4-9		
		Teacher's Edition:		
		232a; A 223; AE 233; PA 233		

OBJECTIVES & INDICATORS		Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in  Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
d.	Define the slope of a line as the ratio of the vertical	Student Edition:		
	change to the horizontal change between two points,	481-185, 487-491		
	and show that the slope is constant using similarity of right triangles.	Geometry Lab 493		
	right thangles.	Teacher's Edition:		
		487a; AE 482, 488, 489; PA 489		
STANDAR	D III: Students will develop fluency with the language a	and operations of algebra to analyze and repre	esent relationships.	
	e of coverage in the <i>student and teacher edition</i> for II:100 %	Percentage of coverage not in student or tea ancillary material for Standard III:		red in the
OE	BJECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
Objective expression	3.1: Generalize and express patterns using algebraic ns.	Student Edition: 427, 429-430, 464-467, 469-472 Teacher's Edition: 464a, 469a; AE 428, 465		
a.	Compare representations of a relation using tables, graphs, algebraic symbols, and mathematical rules.	Student Edition: 469-472, 475-479 Get Ready 434 Graphing Calculator Lab 500-501 Problem-Solving Investigation 438 Teacher's Edition: 434a, 475a; AE 503		

ОВ	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
b.	Describe simple patterns using a mathematical rule or	Student Edition:		
	algebraic expression.	427, 429-430, 464-467, 469-472		
		Teacher's Edition:		
		464a, 469a; AE 428, 465		
C.	Create and extend simple numerical and visual	Student Edition:		
	patterns.	429 #1-#3, #6-#9, 430 #26, 467 #30-#31, 475-479		
		Geometry Lab 493		
		Get Ready 487		
		Mini Lab 464		
		Teacher's Edition:		
		469a; AE 428		
	3.2: Evaluate, simplify, and solve algebraic	Student Edition:		
expression	ns, equations, and inequalities.	36-38, 416-421, 422-426, 428-431,434-437 441-444, 445-447, 449-453		
		Algebra Lab 40, 432-433		
		Get Ready 427		
		Problem-Solving Investigation 438		
a.	Evaluate algebraic expressions, including those with	Student Edition:		
	whole number exponents, when given values for the variable(s).	30, 32 #1-#6, #11-#24, 36-38, 127		
		Algebra Lab 40		
		Get ready 427		
		Problem-Solving Investigation 438		
		Teacher's Edition:		
		AE 30, 37, 127		

ОВ	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
В	Simplify algebraic expressions using the order of	Student Edition:		
	operations, algebraic properties, and exponent rules.	416-421		
		Study Guide and Review 455 8-1		
		Teacher's Edition:		
		A 421; AE 417, 418; PA 418		
c.		Student Edition:		
	including those that must be simplified on one side or those with variables on both sides of an equation.	422-426, 428-431,434-437 441-444, 445-447, 449-453		
		Algebra Lab 432-433		
		Problem-Solving Investigation 438		
		Teacher's Edition:		
		427a; AE 423, 424, 435, 442; PA 428, 448		
Objective :	3.3: Represent relationships using graphs, tables,	Student Edition:		
and other	models.	469-472, 475-479		
		Get Ready 434		
		Graphing Calculator Lab 500-501		
		Problem-Solving Investigation 438		
		Teacher's Edition:		
		434a, 475a; AE 503		

	OBJECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
	a. Identify approximate rational coordinates when given	Student Edition:		
	the graph of a point on a rectangular coordinate	173-177		
	system.	Get Ready 475		
		Practice Test 183 #23-#25		
		Study Guide and Review i182 3-4		
		Teacher's Edition:		
		173a; AE 174, 175, 477; PA 175; T 475		
	<b>b.</b> Graph ordered pairs of rational numbers on a rectangular coordinate system.	Student Edition:		
		173-177		
		Get Ready 475		
		Practice Test 183 #23-#25		
		Study Guide and Review i182 3-4		
		Teacher's Edition:		
		173a; AE 174, 175, 477; PA 175; T 475		
	Graph linear equations using ordered pairs or tables.	Student Edition:		
		476, 485 #15-#16		
		Get ready 475		
		Study Guide and Review 519 9-3		
		Teacher's Edition:		
		AE 476		

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d.	Recognize that all first order equations produce linear graphs.	Student Edition: 475-479, 487-491, 495-499 Graphing Calculator Lab 500-501 Study Guide and Review 519 9-3, 520-521 Teacher's Edition: AE 476, 477, 480, 496; PA 505		
e.	Model real-world problems using graphs, tables, equations, manipulatives, and pictures, and identify extraneous information.	Student Edition: 435 Example 3, 436 #22-#23, 443 #10-#15, 470 Example 4, 475 Example 1, 479 #22, 504 Example 4  Get Ready 427, 434, 441, 469, 475, 487, 495  Teacher's Edition: 434a		

	e of coverage in the s <i>tudent and teacher edition</i> for IV:100%	Percentage of coverage not in student or teacher edition, but covered in the ancillary material for Standard IV:%		red in the
		Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓	
		23 #14, 98 Example 4, 206 Example 3, 214 #28, #37, 227 Example 4, 236-241, 403 #17, 479 #17-#19  Concepts and Skills Bank 742-745  Practice Test 247 #4  Teacher's Edition:		
a.	Convert units of measure within the same system.	Student Edition: 214 #34, 377 #23-#25 Concepts and Skills Bank 742-743		
b.	Create and interpret scale drawings and approximate distance on maps using scalefactors.	Student Edition: 236-241, 255 #38, 261 #72  Practice Test 247 #12  Study Guide and review 246 4-10  Test Practice 249 #10  Teacher's Edition: 236a; A 241; AE 237, 238		

ОВ	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
C.	Solve problems using scale factors.	Student Edition:		
		98 Example 4, 206 Example 3, 214 #37, 227 #4, 232-235, 236-241, 255 #39, 403 #17		
		Geometry Lab 224		
		Teacher's Edition:		
		AE 233		
	4.2: Derive formulas for surface areas and volume of ensional figures.	<b>Student Edition:</b> 373-378, 380-384, 386-391, 393-396, 399-404		
		Measurement Lab 385, 392		
		Mid-Chapter Quiz 379 #10-#11		
		Spreadsheet Lab 397		
		Teacher's Edition:		
		386a, 380a, 386a; AE 374, 375, 381, 387; T 373		

OB	BJECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
a.	Derive formulas for and calculate surface area and	Student Edition:		
	volume of right prisms and cylinders using appropriate	373-378, 386-391		
	units.	Measurement Lab 385		
		Mid-chapter Quiz 379 #10-#11		
	Sp	Spreadsheet Lab 397		
		Teacher's Edition:		
		386a; AE 374, 375; T 373		
b.	Explain that if a scale factor describes how	Student Edition:		
	corresponding lengths in two similar objects are related,	218-223, 399-404		
	then the square of the scale factor describes how corresponding areas are related and the cube of the	Geometry Lab 224		
	scale factor describes how corresponding volumes are	Practice Test 409 #14-316		
	related.	Spreadsheet Lab 397-398		
		Study Guide and Review 408 7-9		
		Teacher's Edition:		
		A 404; FM 400; T 399		
C.	Find lengths, areas, and volumes of similar figures,	Student Edition:		
	using the scale factor.	218-223, 399-404		
		Practice Test 409 #14-#16		
		Spreadsheet Lab 397-698		
		Study Guide and review 408 7-9		
		Teacher's Edition:		
		AE 219, 220, 221, 400, 401		

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d.	Select appropriate two- and three-dimensional figures to model real-world objects, and solve a variety of problems involving surface areas and volumes of cylinders and prisms.	Student Edition: 355 #16-#19, 356 #25-#31, 364 Example 2, 371 #17-#18, 376 #16-#21, 377 #22, #26, 383 #18, #22-#23, 387 Example2, 389 Example 4 Get Ready 363, 368 Teacher's Edition: AE 354		
STANDAR	D V: Students will use algebraic, spatial, and logical re	asoning to solve geometry and measurement	problems.	•
	e of coverage in the student and teacher edition for /:100%	Percentage of coverage not in student or teacher edition, but covered in the ancillary material for Standard V:%		
ОВ	BJECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
Objective :	5.1 Calculate probabilities of events and compare	Student Edition:		
theoretical	l and experimental probability.	637-642, 643-645		
		Mini Lab 643		
		Probability Lab 648		
		Teacher's Edition:		
		637a, 643a; A 647; AE 638, 639, 644; PA 639, 644; T 643		

OF	BJECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
a.	come committee	Student Edition:		
	Counting Principle.	633-635, 642 #37, 647 #27		
		Study Guide and Review 660 12-1		
		Teacher's Edition:		
		632a; A 636; AE 633		
b.	Calculate the probability of an event or sequence of	Student Edition:		
	events with and without replacement using models.	637-642, 643-645		
		Mini Lab 643		
		Probability Lab 648		
		Teacher's Edition:		
		637a, 643a; A 647; AE 638, 639, 644; PA 639, 644; T 643		
C.	Recognize that the sum of the probability of an event and the probability of its complement is equal to one.	The sum of a probability and its complement can be discussed along with the lessons in Chapter 12.		
d.	Make approximate predictions using theoretical	Student Edition:		
	probability and proportions.	643, 645 #1, 646 #13, #19, #22		
		Teacher's Edition:		
		643a; FM 645		

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e.		Student Edition:		
	trials increases, experimental probability approaches the theoretical probability.	653-657		
	the theoretical probability.	Mini Lab 643		
		Probability Lab 648-649		
		Teacher's Edition:		
		AE 654, 655; T 643		
Objective	5.2: Formulate questions and answer the questions	Student Edition:		
by organiz	ring and analyzing data.	579 #19-#20, 587 #14, #22		
		Get Ready 576, 582		
		Graphing Calculator Lab 581		
		Problem-Solving Investigation 574		
		Teacher's Edition:		
		576a; AE 575; T 582		
a.	Formulate questions that can be answered through	Student Edition:		
	data collection and analysis.	579 #19-#20, 587 #14, #22		
		Get Ready 576, 582		
		Graphing Calculator Lab 581		
		Problem-Solving Investigation 574		
		Teacher's Edition:		
		576a; AE 575; T 582		

OF	BJECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
b.	Determine the 25th and 75th percentiles (first and third quartiles) to obtain information about the spread of data.	This objective can taught with the following references to measures of variation where the student is able to determine the lower and upper quartiles.		
		Student Edition:		
		599-604		
		Teacher's Edition:		
		A 604; AE 600		
C.		Student Edition:		
	histograms and box-and whisker plots.	576-580, 605-610		
		Graphing Calculator Lab 581, 611		
		Teacher's Edition:		
		576a, 605a; AE 577, 578, 606, 607; T 576; TT 576		
d.	Compute the mean and median of a numerical	Student Edition:		
	characteristic and relate these values to the histogram	591-596		
	of the data.	Spreadsheet Lab 597		
		Study Guide and Review 624 11-4		
		Teacher's Edition:		
	59	591a; AE 592, 593; PA 596; T 591		

ОΒ	JECTIVES & INDICATORS	Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)	Coverage in Ancillary Material (titles, pg #'s, etc.)	Not covered in TE, SE or ancillaries ✓
e.	Use graphical representations and numerical summaries to answer questions and interpret data.	Student Edition: 579 #19-#20, 587 #14, #22 Get Ready 576, 582 Graphing Calculator Lab 581 Problem-Solving Investigation 574 Teacher's Edition: 576a; AE 575; T 582		